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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,377

04/28/2006

Dimitris Katsoulis

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EXAMINER

HUDA, SAEED M

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

04/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary	Application No. 10/577,377	Applicant(s) KATSOU LIS ET AL.	
	Examiner SAEED M. HUDA	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/28/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 6-10, 13-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-16, drawn to a method of embossing a cured silicone resin thermoset substrate to imprint patterns onto the substrate from a master mold by stacking a master mold, applying pressure, cooling the product, and releasing the substrate.

Group II, claim(s) 17-20, drawn to a product produced by the above method.

2. The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature common to Groups I-II is the invention related to drawn to a method of embossing a cured silicone resin thermoset substrate to imprint patterns onto the substrate from a master mold by stacking a master mold, applying pressure, cooling the product, and releasing the substrate. This cannot be a special technical feature under PCT Rule 13.2, because the element is known in the prior art.

Oshima et al. (JP 11059094 A) teach that press rolls by which many encaustic elements of the predetermined form which is equipment which manufactures the ornament sheet for fluoroscopy protection according to claim 1 to 7, and has the triangular prism of a large number by which parallel arrangement was carried out continuously. Manufacture equipment of the ornament sheet for fluoroscopy protection characterized by including a means to apply paste-like resin to the whole surface of a base material sheet, a means to press the field where this paste-like resin was applied on said press roll, and a means to solidify said paste-like resin.

Accordingly, the special technical feature linking the three inventions does not provide a contribution over the prior art, and no single general inventive concept exists. Therefore, restriction is appropriate.

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3. During a telephone conversation with Attorney Timothy Troy on 02/03/2009 a provisional election was made with traverse to prosecute the invention of group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Group II, claims 17-20 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 2002/0025408 A1) in view of Crystal (US 3951060).

a. Regarding claim 1, Davis teaches an embossing (imprinting) method where a substrate, made from thermosetting silicone resin, is introduced to a mold (master). The mold has a surface feature and said feature will be imparted to substrate during imprinting. The embossing process entails heating the first substrate to a temperature above as substrate surface glass transition temperature and preheating the mold to a mold temperature of up to about 30°C. After compressing the heated substrate in the mold said compressed substrate is cooled and the cooled substrate is removed and has the features of the master (abstract and claim 7). Davis fails to explicitly teach that the substrate is cured silicone.

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Crystal teaches a process for preparing a waterless lithographic printing master where a substrate is coated with a silicone which is curable and where the silicone is cured at least on its surface (abstract). It would have been obvious to one having ordinary skill in the art at the time of the invention to cure the silicone of Davis as disclosed in Crystal because this renders the silicone surface nontacky (abstract) which reduces the degree that the substrate will stick to the imprint master resulting in easier separation.

b. Regarding claim 2, Davis teaches that the silicone is a film ([0032]).

c. Regarding claims 4 and 11, Davis in view of Crystal fails to disclose applying the claimed pressure; however, absent evidence of unexpected results obtained from applying the claimed pressure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected a suitable pressure to effectively emboss the substrate, the pressure being a result effective variable routinely optimized by those of skill in the art. The optimization of a range or other variable within the claims that flows from the “normal desire of scientists or artisans to improve upon what is already generally known” is prima facie obvious. *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (determining where in a disclosed set of percentage ranges the optimum combination of percentages lies is prima facie obvious). The discovery of an optimum value of a variable in a known process is usually obvious. *In re Aller*, 220 F.2d 454, 456 (C.C.P.A. 1955). See also *In re Boesch*, 617 F.2d 272, 276 (C.C.P.A. 1980) (“[D]iscovery of an optimum value of a result effective variable in a known

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process is ordinarily within the skill of the art.”). See also *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (“[I]t is not inventive to discover the optimum or workable ranges by routine experimentation.” (quoting *Aller*, 220 F.2d at 456)); *In re Kulling*, 897 F.2d 1147, 1149 (Fed. Cir. 1990) (finding no clear error in Board of Patent Appeals and Interferences’ conclusion that the amount of eluent to be used in a washing sequence was a matter of routine optimization known in the pertinent prior art and therefore obvious).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 2002/0025408 A1) in view of Crystal (US 3951060) as applied to claim 1 above, and further in view of Maruoka et al. (US 2004/0086728 A1).

Davis in view of Crystal fails to teach that the glass transition temperature is from 50°C to 120°C. Maruoka et al. teach that a silicone coating film has a glass transition temperature from 70°C to 120°C (claim 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to use the silicone film with the specified glass transition temperature of 70°C to 120°C in the invention of Davis in view of Crystal as this is an art recognized glass transition temperature of silicone as exemplified by the teaching of Maruoka et al.

7. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 2002/0025408 A1) in view of Crystal (US 3951060) as applied to claim 1 above, and further in view of Braunschweig et al. (US 2003/0143938 A1).

Davis in view of Crystal fail to explicitly teach the material used to make the mold. Braunschweig et al. disclose that a master tool can be used to imprint a sheet material

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where the master mold can be made from aluminum. It would have been obvious to one skill in the art at the time of the invention to use aluminum, as taught in Braunschweig et al., in the invention of Davis in view of Crystal because aluminum is a common metal and if said master is made of aluminum it can be recycled after its useful lifespan.

Claim Objections

8. Claim 6-10 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The prior art considered individually or in combination fail to teach the cured silicone resin substrate is a composition as disclosed in these claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAEED M. HUDA whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAEED M. HUDA/
Examiner, Art Unit 1791

/Eric Hug/
Primary Examiner, Art Unit 1791